

SEQUENCE LISTING

<110> Ban, Kazuhiro
Shiotsuka, Hidenori
Imamura, Takeshi

<120> Kit for immobilizing organic substance, organic substance-immobilized structure, and manufacturing methods therefor

<130> 03500.102556

<140> PCT/JP2005/001316

<141> 2005-01-25

<150> JP2004-016858

<151> 2004-01-26

<160> 181

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 catggcctgc gccaccccg gcacaccgcg cgacacgcct tgaactggg tggtaactg 180
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 Ala Ser Ala Arg Met Val Leu Arg Gln Ala Ile Lys Gln Pro Val His
 35 40 45
 Ser Val Lys His Val Ala His Phe Gly Leu Glu Leu Lys Asn Val Leu
 50 55 60
 Leu Gly Lys Ser Gly Leu Gln Pro Thr Ser Asp Asp Arg Arg Phe Ala
 65 70 75 80
 Asp Pro Ala Trp Ser Gln Asn Pro Leu Tyr Lys Arg Tyr Leu Gln Thr
 85 90 95
 Tyr Leu Ala Trp Arg Lys Glu Leu His Asp Trp Ile Asp Glu Ser Asn
 100 105 110
 Leu Ala Pro Lys Asp Val Ala Arg Gly His Phe Val Ile Asn Leu Met
 115 120 125
 Thr Glu Ala Met Ala Pro Thr Asn Thr Ala Ala Asn Pro Ala Ala Val
 130 135 140

Lys Arg Phe Phe Glu Thr Gly Gly Lys Ser Leu Leu Asp Gly Leu Ser
 145 150 155 160
 His Leu Ala Lys Asp Leu Val His Asn Gly Gly Met Pro Ser Gln Val
 165 170 175
 Asn Met Gly Ala Phe Glu Val Gly Lys Ser Leu Gly Val Thr Glu Gly
 180 185 190
 Ala Val Val Phe Arg Asn Asp Val Leu Glu Leu Ile Gln Tyr Lys Pro
 195 200 205
 Thr Thr Glu Gln Val Tyr Glu Arg Pro Leu Leu Val Val Pro Pro Gln
 210 215 220
 Ile Asn Lys Phe Tyr Val Phe Asp Leu Ser Pro Asp Lys Ser Leu Ala
 225 230 235 240
 Arg Phe Cys Leu Arg Asn Asn Val Gln Thr Phe Ile Val Ser Trp Arg
 245 250 255
 Asn Pro Thr Lys Glu Gln Arg Glu Trp Gly Leu Ser Thr Tyr Ile Glu
 260 265 270
 Ala Leu Lys Glu Ala Val Asp Val Val Thr Ala Ile Thr Gly Ser Lys
 275 280 285
 Asp Val Asn Met Leu Gly Ala Cys Ser Gly Gly Ile Thr Cys Thr Ala
 290 295 300
 Leu Leu Gly His Tyr Ala Ala Ile Gly Glu Asn Lys Val Asn Ala Leu
 305 310 315 320
 Thr Leu Leu Val Ser Val Leu Asp Thr Thr Leu Asp Ser Asp Val Ala
 325 330 335
 Leu Phe Val Asn Glu Gln Thr Leu Glu Ala Ala Lys Arg His Ser Tyr
 340 345 350
 Gln Ala Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala Trp
 355 360 365
 Met Arg Pro Asn Asp Leu Ile Trp Asn Tyr Trp Val Asn Asn Tyr Leu
 370 375 380
 Leu Gly Asn Glu Pro Pro Val Phe Asp Ile Leu Phe Trp Asn Asn Asp
 385 390 395 400
 Thr Thr Arg Leu Pro Ala Ala Phe His Gly Asp Leu Ile Glu Leu Phe
 405 410 415
 Lys Asn Asn Pro Leu Ile Arg Pro Asn Ala Leu Glu Val Cys Gly Thr
 420 425 430
 Pro Ile Asp Leu Lys Gln Val Thr Ala Asp Ile Phe Ser Leu Ala Gly
 435 440 445
 Thr Asn Asp His Ile Thr Pro Trp Lys Ser Cys Tyr Lys Ser Ala Gln
 450 455 460
 Leu Phe Gly Gly Asn Val Glu Phe Val Leu Ser Ser Ser Gly His Ile
 465 470 475 480

Gln Ser Ile Leu Asn Pro Pro Gly Asn Pro Lys Ser Arg Tyr Met Thr
485 490 495

Ser Thr Glu Val Ala Glu Asn Ala Asp Glu Trp Gln Ala Asn Ala Thr
500 505 510

Lys His Thr Asp Ser Trp Trp Leu His Trp Gln Ala Trp Gln Ala Gln
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Arg Ser Gly Glu Leu Lys Lys Ser Pro Thr Lys Leu Gly Ser Lys Ala
530 535 540

Tyr Pro Ala Gly Glu Ala Ala Pro Gly Thr Tyr Val His Glu Arg
545 550 555

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<213> *Pseudomonas cichorii* YN2 ; FERM BP-7375

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Met Arg Asp Lys Pro Ala Arg Glu Ser Leu Pro Thr Pro Ala Lys Phe
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Ile Asn Ala Gln Ser Ala Ile Thr Gly Leu Arg Gly Arg Asp Leu Val
20 25 30

Ser Thr Leu Arg Ser Val Ala Ala His Gly Leu Arg His Pro Val His
35 40 45

Thr Ala Arg His Ala Leu Lys Leu Gly Gly Gln Leu Gly Arg Val Leu
50 55 60

Leu Gly Asp Thr Leu His Pro Thr Asn Pro Gln Asp Arg Arg Phe Asp
65 70 75 80

Asp Pro Ala Trp Ser Leu Asn Pro Phe Tyr Arg Arg Ser Leu Gln Ala
85 90 95

Tyr Leu Ser Trp Gln Lys Gln Val Lys Ser Trp Ile Asp Glu Ser Asn
100 105 110

Met Ser Pro Asp Asp Arg Ala Arg Ala His Phe Ala Phe Ala Leu Leu
115 120 125

Asn Asp Ala Val Ser Pro Ser Asn Ser Leu Leu Asn Pro Leu Ala Ile
130 135 140

Lys Glu Ile Phe Asn Ser Gly Gly Asn Ser Leu Val Arg Gly Ile Gly
145 150 155 160

His Leu Val Asp Asp Leu Leu His Asn Asp Gly Leu Pro Arg Gln Val
165 170 175

Thr Arg His Ala Phe Glu Val Gly Lys Thr Val Ala Thr Thr Thr Gly
180 185 190

Ala Val Val Phe Arg Asn Glu Leu Leu Glu Leu Ile Gln Tyr Lys Pro
195 200 205

Met Ser Glu Lys Gln Tyr Ser Lys Pro Leu Leu Val Val Pro Pro Gln
210 215 220

Ile Asn Lys Tyr Tyr Ile Phe Asp Leu Ser Pro His Asn Ser Phe Val
 225 230 235 240
 Gln Phe Ala Leu Lys Asn Gly Leu Gln Thr Phe Val Ile Ser Trp Arg
 245 250 255
 Asn Pro Asp Val Arg His Arg Glu Trp Gly Leu Ser Thr Tyr Val Glu
 260 265 270
 Ala Val Glu Glu Ala Met Asn Val Cys Arg Ala Ile Thr Gly Ala Arg
 275 280 285
 Glu Val Asn Leu Met Gly Ala Cys Ala Gly Gly Leu Thr Ile Ala Ala
 290 295 300
 Leu Gln Gly His Leu Gln Ala Lys Arg Gln Leu Arg Arg Val Ser Ser
 305 310 315 320
 Ala Thr Tyr Leu Val Ser Leu Leu Asp Ser Gln Leu Asp Ser Pro Ala
 325 330 335
 Thr Leu Phe Ala Asp Glu Gln Thr Leu Glu Ala Ala Lys Arg Arg Ser
 340 345 350
 Tyr Gln Lys Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala
 355 360 365
 Trp Met Arg Pro Asn Asp Leu Ile Trp Ser Tyr Phe Val Asn Asn Tyr
 370 375 380
 Leu Met Gly Lys Glu Pro Pro Ala Phe Asp Ile Leu Tyr Trp Asn Asn
 385 390 395 400
 Asp Asn Thr Arg Leu Pro Ala Ala Leu His Gly Asp Leu Leu Asp Phe
 405 410 415
 Phe Lys His Asn Pro Leu Ser His Pro Gly Gly Leu Glu Val Cys Gly
 420 425 430
 Thr Pro Ile Asp Leu Gln Lys Val Thr Val Asp Ser Phe Ser Val Ala
 435 440 445
 Gly Ile Asn Asp His Ile Thr Pro Trp Asp Ala Val Tyr Arg Ser Thr
 450 455 460
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 465 470 475 480
 Val Gln Ser Ile Leu Asn Pro Pro Asn Asn Pro Lys Ala Asn Tyr Leu
 485 490 495
 Glu Gly Ala Lys Leu Ser Ser Asp Pro Arg Ala Trp Tyr Tyr Asp Ala
 500 505 510
 Lys Pro Val Asp Gly Ser Trp Trp Thr Gln Trp Leu Gly Trp Ile Gln
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 <400> 38
 ggggtgagga tgctctggat gtg 23

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 cgagcaagct tgctcctaca ggtgaaggc 29

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catccaagct tcttatgac gggcatgcc 30

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<210> 47
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<210> 48
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<212> DNA
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 <210> 49
 <211> 58
 <212> DNA
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 <210> 50
 <211> 50
 <212> DNA
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 <223> Complimentary chain for ssDNA of SEQ ID:2

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 ccgaacctcc accagtcata aaaggattcc gagtcgtaat cgaagactgg 50

 <210> 51
 <211> 58
 <212> DNA
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<223> Coding chain for peptide of SEQ ID:6

<400> 57
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<210> 58
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<223> Complimentary chain for ssDNA of SEQ ID:6

<400> 58
ccgaacctcc accctgacta tgaggactca tcggcccat agtagtattg 50

<210> 59
<211> 58
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<223> Coding chain for peptide of SEQ ID:7

<400> 59
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<210> 60
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<223> Complimentary chain for ssDNA of SEQ ID:7

<400> 60
ccgaacctcc accctgaaaa gtagaatcca aattctccgg atgatgatgg 50

<210> 61
<211> 58
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<220>
<223> Coding chain for peptide of SEQ ID:8

<400> 61
gatccgctgc tcattttgag cctcagacta tgcctatgat tgggtggaggt tcggagct 58

<210> 62
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<223> Complimentary chain for ssDNA of SEQ ID:8

<400> 62
ccgaacctcc accaatcata ggcatagtct gaggetcaaa atgagcagcg 50

<210> 63
<211> 58
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<223> Coding chain for peptide of SEQ ID:9

<400> 63
gatccgatca tcagcttcat cgtcctccgc atatgatgag ggggtggaggt tcggagct 58

<210> 64
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<223> Complimentary chain for ssDNA of SEQ ID:9

<400> 64
ccgaacctcc acccctcatc atatgccggag gacgatgaag ctgatgatcg 50

<210> 65
<211> 58
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 <223> Coding chain for peptide of SEQ ID:10

 <400> 65
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 <210> 66
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 <223> Complimentary chain for ssDNA of SEQ ID:10

 <400> 66
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 <210> 67
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 <223> Coding chain for peptide of SEQ ID:11

 <400> 67
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 <210> 68
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 <223> Complimentary chain for ssDNA of SEQ ID:11

 <400> 68
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 <210> 69
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 <223> Coding chain for peptide of SEQ ID:12

 <400> 69
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 <210> 70
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 <220>
 <223> Complimentary chain for ssDNA of SEQ ID:12

 <400> 70
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 <210> 71

<211> 58
 <212> DNA
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 <220>
 <223> Coding chain for peptide of SEQ ID:13

 <400> 71
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 <210> 72
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 <223> Complimentary chain for ssDNA of SEQ ID:13

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 <210> 73
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 <223> Coding chain for peptide of SEQ ID:14

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 <210> 74
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 <210> 75
 <211> 58
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 <223> Coding chain for peptide of SEQ ID:15

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 <210> 76
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 <223> Complimentary chain for ssDNA of SEQ ID:15

 <400> 76

ccgaacctcc accacgcgca ggctgacgca aagtctcagc attaggaatg 50

<210> 77

<211> 58

<212> DNA

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<220>

<223> Coding chain for peptide of SEQ ID:16

<400> 77

gatccgttcg cgctacagtc tcgtggcatc cgcatgatct tggaggaggt tcggagct 58

<210> 78

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:16

<400> 78

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<211> 58

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<223> Coding chain for peptide of SEQ ID:17

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<210> 80

<211> 50

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<220>

<223> Complimentary chain for ssDNA of SEQ ID:17

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<210> 81

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:18

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<210> 82

<211> 50

<212> DNA

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<220>

<223> Complimentary chain for ssDNA of SEQ ID:18

<400> 82
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<210> 83

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:19

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<210> 84

<211> 50

<212> DNA

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<220>

<223> Complimentary chain for ssDNA of SEQ ID:19

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<210> 85

<211> 58

<212> DNA

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<220>

<223> Coding chain for peptide of SEQ ID:20

<400> 85
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<210> 86

<211> 50

<212> DNA

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<220>

<223> Complimentary chain for ssDNA of SEQ ID:20

<400> 86
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<210> 87

<211> 58

<212> DNA

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<220>

<223> Coding chain for peptide of SEQ ID:21

<400> 87
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<210> 88

<211> 50

<212> DNA

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<220>

<223> Complimentary chain for ssDNA of SEQ ID:21

<400> 88

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<210> 89

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:22

<400> 89

gatccatgaa gactcatcat ggtaataatg cgggtgttct ggggtggaggt tcggagct 58

<210> 90

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:22

<400> 90

ccgaacctcc acccagaaac accgcattat taccatgatg agtcttcatg 50

<210> 91

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:23

<400> 91

gatccttgga gccgttcct catactctc ggatgtatgc ggggtggaggt tcggagct 58

<210> 92

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:23

<400> 92

ccgaacctcc acccgcatat atccgaggag tatgaggaag cggtccaag 50

<210> 93

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:24

<400> 93

gatcccagct gtatgagcct gattctgggc cgtgggctcc ggggtggaggt tcggagct 58

<210> 94
<211> 50
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<400> 94
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<210> 95
<211> 58
<212> DNA
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<223> Coding chain for peptide of SEQ ID:25

<400> 95
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<210> 96
<211> 50
<212> DNA
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<400> 96
ccgaacctcc accataccta gtatgcgtag taggcatctt agtcatccag 50

<210> 97
<211> 58
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<223> Coding chain for peptide of SEQ ID:26

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<210> 98
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<212> DNA
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<400> 98
ccgaacctcc accaggcaac gccctagtca tagaatacat aggatgatgg 50

<210> 99
<211> 58
<212> DNA
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<220>
<223> Coding chain for peptide of SEQ ID:27

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<210> 100
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<212> DNA
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<220>
<223> Complimentary chain for ssDNA of SEQ ID:27

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<210> 101
<211> 58
<212> DNA
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<220>
<223> Coding chain for peptide of SEQ ID:28

<400> 101
gatcccatcc gcctttgatg cagtatcata tgcgggtac ggggtggaggt tcggagct 58

<210> 102
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Complimentary chain for ssDNA of SEQ ID:28

<400> 102
ccgaacctcc acccgtaccc gacatatgat actgcatcaa aggcgaaatgg 50

<210> 103
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
<223> Coding chain for peptide of SEQ ID:29

<400> 103
gatcctatgc gcatatgacg atgccgtctc ggTTTTTgcc ggggtggaggt tcggagct 58

<210> 104
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Complimentary chain for ssDNA of SEQ ID:29

<400> 104
ccgaacctcc acccggcaaa aaccgagacg gcatcgtcat atgcgcatag 50

<210> 105
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
 <223> Coding chain for peptide of SEQ ID:30

 <400> 105
 gatccgcttg tccgcctacg cagtctcggg attgcgggtgg aggttcggag ct 52

 <210> 106
 <211> 44
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Complimentary chain for ssDNA of SEQ ID:30

 <400> 106
 ccgaacctcc accgcaatac cgagactgcg taggcggaca agcg 44

 <210> 107
 <211> 52
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Coding chain for peptide of SEQ ID:31

 <400> 107
 gatccgcttg taatggcatg ttggccttc agtgcgggtgg aggttcggag ct 52

 <210> 108
 <211> 44
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Complimentary chain for ssDNA of SEQ ID:31

 <400> 108
 ccgaacctcc accgcactga aaggccaaca tgccattaca agcg 44

 <210> 109
 <211> 52
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Coding chain for peptide of SEQ ID:32

 <400> 109
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 <210> 110
 <211> 44
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Complimentary chain for ssDNA of SEQ ID:32

 <400> 110
 ccgaacctcc accgcaatgc ttgcccggtc tcggcggtaca agcg 44

 <210> 111
 <211> 972

<212> DNA
<213> Artificial Sequence

<220>
<223> HPR coding artificial sense-sequence

<400> 111
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aactccaact ct 972

<210> 112
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<223> Primer for PCR multiplication

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<210> 113
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<220>
<223> Primer for PCR multiplication

<400> 113

gtttatgcca accaaacccc accaagcaag 30

<210> 114

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 114

tggtgtctaa caagatcgat gcgtcacaa cattaacaaa gcagtcgtgg aagtgaagac 60

gaaggatgct cgcggcaata cgagggtctg atcttagctc attgacaata gtatcccgta 120

<210> 115

<211> 30

<212> DNA

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<223> Primer for PCR multiplication

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tggtgtctaa caagatcgat gcgtcacaa 30

<210> 116

<211> 120

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<223> Primer for PCR multiplication

<400> 116

atcgatcttg ttagacaaca caacatcatt tcgaacagag aaagatgcgt ttggaacgc 60

aaactcggca agaggatttc cagtgttga tagaatgaaa gccgcggtgg agagtgcattg 120

<210> 117

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 117

atcgatcttg ttagacaaca caacatcatt 30

<210> 118

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 118

tcttctgccc aaaggaactc tccaagaagg acctcccgcc aaagtgcagc attgttgagc 60

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<210> 120
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<210> 121
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<210> 122
<211> 120
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<400> 122
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<210> 123
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 123
ccggtgttc tgaagttga taatctgtcc 30

<210> 124
<211> 120
<212> DNA
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<220>

<223> Primer for PCR multiplication

<400> 124

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cttcgtggac tatgtccct caatggtaat ctaagcgctt tggaggattt tgatctacgt 120

<210> 125

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 125

tacaacttca gcaacaccgg ttaccggat 30

<210> 126

<211> 120

<212> DNA

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<220>

<223> Primer for PCR multiplication

<400> 126

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cgagattcac atagtatttg ttgtcaaaa tcgtggcgt acgtagatca aaatccacca 120

<210> 127

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<210> 129

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 129

ctctagcccc aatgccactg acacaatccc 30

<210> 130

<211> 72

<212> DNA

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<223> Primer for PCR multiplication

<400> 130

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tgtaatgttt cc 72

<210> 131

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 131

agagttggag ttcaccaccc tacaattcaa 30

<210> 132

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 132

agtcggatcc gtttatgcga atcagactcc gccttctaag gcgcgggggtg gaggttcg 58

<210> 133

<211> 34

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

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<210> 134

<211> 1695

<212> DNA

<213> Artificial Sequence

<220>

<223> GroEL coding artificial sense-sequence

<400> 134

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gatgcagtga aagtaccct cgttccaaaa ggccgtaacg tagttctgga taaatcttc 180
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<210> 135

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 135
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gacgtaaaat tcggtaacga cgctcgtgtg aaaatgctgc gcggcgtaaa cgtactggca 120

<210> 136
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 136
gtttatgcga atcagactcc gccttctaag 30

<210> 137
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 137
gagcaacgga aacaccatct ttggtgatgg tcggtgcacc gaaagattta tccagaacta 60
cgttacggcc ttttgaccg agggttaactt tcaactgcac tgccagtacg ttacgccgc 120

<210> 138
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 138
gagcaacgga aacaccatct ttggtgatgg 30

<210> 139
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 139
agatggtgtt tccgttgctc gtgaaatcga actggaagac aagttcgaaa atatgggtgc 60
gcagatgggtg aaagaagttg cctctaaagc aaacgacgct gcaggcgacg gtaccaccac 120

<210> 140
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 140
agatggtgtt tccgttgctc gtgaaatcga 30

<210> 141
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 141
aaccgcttg tcgataccac gtttcaggtc catcggggtc atgcccgcag caacagctt 60
cagacctca gtgatgatag cctgagccag tacgggtgca gtggtggtac cgtcgcctgc 120

<210> 142
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 142
aaccgcttg tcgataccac gtttcaggtc 30

<210> 143
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 143
gtggtatcga caaagcggt accgctgcag ttgaagaact gaaagcgctg tccgtacat 60
gctctgactc taaagcgatt gctcaggtg gtaccatctc cgctaactcc gacgaaaccg 120

<210> 144
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 144
gtggtatcga caaagcggt accgctgcag 30

<210> 145
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 145
tcaaccagt ccagttcgtc ctgcagaccg gtaccgtctt caacgggat aacgccttct 60
ttaccgactt tgccatcgc ttcagcgtc agtttaccta cggtttcgtc ggagtagcg 120

<210> 146

<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 146
tcaaccacgt ccagttcgtc ctgcagaccg 30

<210> 147
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 147
gacgaactgg acgtggttga aggtatgcag ttcgaccgtg gctacctgtc tccttacttc 60
atcaacaagc cggaaactgg cgcagtagaa ctggaaagcc cgttcacatc gctggctgac 120

<210> 148
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 148
gacgaactgg acgtggttga aggtatgcag 30

<210> 149
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 149
cttcgccttc tacatcttca gcgatgataa gcagcggttt gcctgctttg gcaacagctt 60
ccagaaccgg cagcatttcg cggatgttgg agattttctt gtcagccagc aggatgaacg 120

<210> 150
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR multiplication

<400> 150
cttcgccttc tacatcttca gcgatgataa 30

<210> 151
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 151
 tgaagatgta gaaggcgaag cgctggcaac tgctgttggt aacaccattc gtggcatcgt 60
 gaaagtcgct gcggttaaag caccgggctt cggcgatcgt cgtaaagcta tgctgcagga 120

<210> 152
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 152
 tgaagatgta gaaggcgaag cgctggcaac 30

<210> 153
 <211> 120
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 153
 cacaacacgt ttacgtgac ccaggtcttc cagggtgct tttccagct ccataccgat 60
 ctcttcagag atcacggtac cgccagtcag gggtgcgata tctgcagca tagctttacg 120

<210> 154
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 154
 cacaacacgt ttacgtgac ccaggtcttc 30

<210> 155
 <211> 120
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 155
 gtcaggctaa acgtgttggt atcaacaaag acaccaccac tatcatcgat ggctgtgggtg 60
 aagaagctgc aatccagggc cgtgttgctc agatccgtca gcagattgaa gaagcaactt 120

<210> 156
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 156
 gtcaggctaa acgtgtgtg atcaacaaag 30

<210> 157
 <211> 120
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 157
 tcttcattt caactcggg agcagcacc accttgataa ctgcaacgcc gcctgccagt 60
 ttgcgtacgc gttcctcag ttttcacgg tcgtagtcag aagtgcttc ttcaatctgc 120

<210> 158
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 158
 tcttcattt caactcggg agcagcacc 30

<210> 159
 <211> 120
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 159
 accgaagttg aatgaaaga gaaaaagca cgcggtgaag atgccctgca cgcgaccgt 60
 gctgcggtag aagaaggcgt ggtgctggt ggtggtgtg cgctgatccg cgtacgtct 120

<210> 160
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 160
 accgaagttg aatgaaaga gaaaaagca 30

<210> 161
 <211> 120
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer for PCR multiplication

<400> 161
 agttcaatac gatctgacgc agcgagctt ccattgcacg cagtgcaact ttgataccca 60

cggtctggtc ttggttctga ccacgcaggt cagccagttt agacgctacg cggatcagcg 120

<210> 162

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 162

agttcaatac gatctgacgc agcggagctt 30

<210> 163

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 163

gcgtcagatc gtattgaact gcggcgaaga accgtctgtt gttgctaaca ccgttaaagg 60

cggcgacggc aactacggtt acaacgcagc aaccgaagaa tacggcaaca tgatcgacat 120

<210> 164

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 164

gcgtcagatc gtattgaact gcggcgaaga 30

<210> 165

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 165

caggtcggta accatgcatt cggtggtgat catcaggcca gccacagaag ctgcgtactg 60

cagagcagaa cgagttactt tggttgggtc caggataccc atgtcgatca tgttgccgta 120

<210> 166

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 166

caggtcggta accatgcatt cggtggtgat 30

<210> 167

<211> 95

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for PCR multiplication

 <400> 167
 ttacatcatg ccgcccattgc caccatgcc gcccataccg ccagcagcgc ctaagtcagc 60

 tgcacgttt ttggcaggt cggtaacct gcatt 95

 <210> 168
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for PCR multiplication

 <400> 168
 aggcctcgag ttacatcatg ccgcccattgc 30

 <210> 169
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for PCR multiplication

 <400> 169
 ttacatcatg ccgcccattgc caccatgcc gcc 33

 <210> 170
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> anodisk membrane-binding peptide

 <400> 170
 Tyr Ala Gln Thr Pro Pro Ser Arg
 1 5

 <210> 171
 <211> 12
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> anodisk membrane-binding peptide

 <400> 171
 Leu Tyr Ala Gln Gln Thr Pro Pro Ser Arg Ser Arg
 1 5 10

 <210> 172
 <211> 16
 <212> PRT
 <213> Artificial Sequence

 <220>

<223> anodisk membrane-binding peptide

<400> 172

Val Tyr Ala Asn Gln Thr Pro Pro Ser Arg Ala Arg Ala Lys Ala Arg
1 5 10 15

<210> 173

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

<400> 173

Val Tyr Ala Asn Gln Thr Pro Pro Ser Lys Ala Arg Tyr Ala Gln
1 5 10 15
Thr Pro Pro Ser Arg
20

<210> 174

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:170

<400> 174

gacacctatgc gcagactccg ccttctcggg gtggagggttc ggagct 46

<210> 175

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:170

<400> 175

ccgaacctcc accccgagaa ggcggagtct gcgcatag 38

<210> 176

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:171

<400> 176

gacacctcta tgcgcaacag actccgcctt ctcggtctcg gggtggaggt tcggagct 58

<210> 177

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:171

<400> 177

ccgaacctcc accccgagac cgagaaggcg gagtctgttg cgcataagag 50

<210> 178
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Coding chain for peptide of SEQ ID:1

<400> 178
gatccgttta tgcgaatcag actccgcctt ctcgcgcacg cgcaaaggcg cgggggtggag 60
gttcggagct 70

<210> 179
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Complimentary chain for ssDNA of SEQ ID:1

<400> 179
ccgaacctcc accccgcgcc ttgcgcgtg cgcgagaagg cggagtctga ttcgcataaa 60
cg 62

<210> 180
<211> 82
<212> DNA
<213> Artificial Sequence

<220>
<223> Coding chain for peptide of SEQ ID:1

<400> 180
gatccgttta tgcgaatcag actccgcctt ctaaggcgcg gtatgcgcag actccgcctt 60
ctcggggtgg aggttcggag ct 82

<210> 181
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Complimentary chain for ssDNA of SEQ ID:1

<400> 181
ccgaacctcc accccgagaa ggccggagtct gcgcataccg cgccttagaa ggccggagtct 60
gattcgcata aacg 74